APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,592	07/27/2006	Aleandro Frezzolini	N2667	2950

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EXAMINER
COSTIN, JEREMY M

ART UNIT	PAPER NUMBER
2465	

NOTIFICATION DATE	DELIVERY MODE
10/23/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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		Application No.	Applicant(s)	
Office Action Summary		10/551,592	FREZZOLINI, ALEANDRO	
		Examiner	Art Unit	
		JEREMY COSTIN	2465	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 September 2005</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-3,33-35 and 64-66</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-3,33-35 and 64-66</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>30 September 2005</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☒ All　b)☐ Some *　c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date <u>12/27/2005</u>.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claims 1-3, 33-35, and 64-66 have been examined and are pending.

Specification

The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

The disclosure and the claim set are objected to because of the following informalities: The specification and claim set include either underline text and/or deletion of text, which is confusing and ambiguous. The applicant should submit a corrected specification and claim set which introduces no new matter.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 33-35, and 64-66 are rejected under 35 U.S.C. 102(b) as being

anticipated by US Patent Application 4,692,761 to Robinton.

Regarding claim 1, Robinton discloses a communication method between a collecting unit (5) **(fig. 2, 24, col. 7, lines 61-63, master unit 24)** and a plurality of control devices (7.sub.i) **(fig. 2, 26(n), col. 7, lines 61-63, remote units)**, each of which is associated with at least an electrical device (1.sub.i) **(col.6, lines 67-68, power meter))**, via a communication channel **(fig. 3, power line 32)**, wherein messages are exchanged between said collecting unit (5) and said control devices (7.sub.i) **(Abstract, The system includes two or more remote units and a master unit, each having an associated address, which are connected to the network. The remote units are each capable of initiating a down link message sequence wherein a data package containing data, such as data relating to power consumption, is transferred from one of the remote units to the master unit.)**, each of which contains at least: a progressive message number (Pr_N) **(Abstract, information which indicates the number of message transmissions required to transfer a data package from the transmitting unit to the master unit)**; an addressee identification number (ID_addressee) **(col. 8, lines 67-68, the message will contain an Intermediate Destination Address and Intermediate Source address)**; a portion of informative content and/or executable commands (M4) **(col. 8, line67, meter data)**; wherein a specific identification number (ID_i; Ser_Ni) is assigned to each control device **(col. 9, lines 1-2, i.e. each remote station has an assigned address for routing purposes)**, said messages being addressable selectively to a specific control device via said

addressee identification number **(fig. 2, col. 8, lines 19-22, Intermediate remote unit 26f will then store and forward the data package in the message to its preferred down link node address, which is the address of the master unit in this instance.)**; and wherein when a control device (7.sub.i) receives a message containing an addressee identification number (ID_addressee) differing from its own identification number (ID_i; Ser_Ni) **(fig. 2, col. 8, lines 19-22, Intermediate remote unit 26f will then store and forward the data package in the message to its preferred down link node address, which is the address of the master unit in this instance.)**, after a given delay interval said control device generates and transmits on said channel (3) at least one echo of said message **(col. 9, lines 7-9, Accordingly, unit 26d will determine that the meter data are to be stored and forwarded in the down link direction.)**, unless a reply to said message from the control device, to which said message was addressed, was received, a routine being activated to prevent unlimited generations of echoes of a given message **(col. 9, lines 33-36, Upon receipt of the final down link message of the sequence, master unit 24 is adapted to initiate an up link message sequence which will include the transmission of one or more up link messages.)**.

Regarding claim 2, Robinton teaches the method as claimed in claim 1, wherein the control device (7.sub.i) that generated an echo of the message received and addressed to a different control device **(col. 8, lines 22-26, It can be seen that the data package transmitted in the message by remote unit 26b must be stored and forwarded by**

four intermediate remote units 26c,26d,26e and 26f, respectively, in order to reach

the master unit.), temporarily stores identifying information of said message and does

not generate subsequent echoes of said message while the identifying information

remains stored **(col. 8, lines 63-67 and col. 9, lines 1-9, Assuming that remote unit**

26c has transmitted a message containing a data package originated by the

remote unit, the message will be directed to remote unit 26d, since that remote

unit is presently preferred. In addition to the meter data, the message will contain

an Intermediate Destination Address, which is the address of remote unit 26d and

an Intermediate Source Address, which is the address of unit 26c. An additional

address will be included indicating that unit 26c is the source of the data package

in the message. The message will further contain information indicating that the

message is a down link message, therefore, the master unit is the final

destination. Accordingly, unit 26d will determine that the meter data are to be

stored and forwarded in the down link direction.).

Regarding claim 3, Robinton teaches the method as claimed in claim 2, wherein each

control device stores the identifying information of messages of which it has generated

an echo in a temporary list containing identifying information of a predetermined

maximum number of messages **(col. 9, lines 51-54, Unit 26f will use the previously-**

stored Intermediate Source Address as the Intermediate Destination Address of

the message to be transmitted. The final destination address of the received

message will be used to identify the stored up link address.).

Regarding claim 33, Robinton teaches a system comprising a collecting unit (5) **(col. 12, line 34, master unit)** including at least a processor (15) **(fig. 3, CPU 36)**, a memory (17) and a transmission and reception device (13) **(fig. 3, 30 and 34)**, and a plurality of control devices (7.sub.i) **(fig. 2, 26(n))**, each of which comprises at least a processor (9), a memory (11) and a transmission and reception device (12) **(see fig. 3,)** and is interfaced with at least an electrical device (1.sub.i) **(col. 12, lines 63-65, from external sources such as electronic power meter 46)**, said collecting unit (5) and said control devices (7.sub.i) being connected to one another via a communication channel **(fig. 3, power line 32)**, wherein the collecting unit (5) and the control devices (7.sub.i) are programmed to exchange messages between said collecting unit and said control devices, each of which contains at least: a progressive message number (Pr N) **(Abstract, information which indicates the number of message transmissions required to transfer a data package from the transmitting unit to the master unit)**; an addressee identification number (ID_addressee) **(col. 8, lines 67-68, the message will contain an Intermediate Destination Address and Intermediate Source address)**; a portion of information content and/or executable commands (M4) **(col. 8, line67, meter data)**; wherein each control device is assigned its own identification number (ID_I; Ser_Ni) **(col. 9, lines 1-2, i.e. each remote station has an assigned address for routing purposes)**, said messages being addressable selectively to a specific control device via said addressee identification number **(fig. 2, col. 8, lines 19-22, Intermediate remote unit 26f will then store and forward the data package in**

the message to its preferred down link node address, which is the address of the master unit in this instance.); and wherein when a control device (7X) receives a message containing an addressee identification number (ID_addressee) differing from its own identification number (ID_i; Ser_Ni) **(fig. 2, col. 8, lines 19-22, Intermediate remote unit 26f will then store and forward the data package in the message to its preferred down link node address, which is the address of the master unit in this instance.)**, after a given delay, interval said control device generates and transmits on said channel (3) at least one echo of said message **(col. 9, lines 7-9, Accordingly, unit 26d will determine that the meter data are to be stored and forwarded in the down link direction.)**, unless a reply to said message from the control device, to which said message was addressed, has already been received a routine being provided to prevent unlimited generations of echoes of a given message **(col. 9, lines 33-36, Upon receipt of the final down link message of the sequence, master unit 24 is adapted to initiate an up link message sequence which will include the transmission of one or more up link messages.)**.

Regarding claim 34, Robinton teaches a system as claimed in claim 33, wherein the control device (7.sub.i) that generated an echo of the message received and addressed to a different control device **(col. 8, lines 22-26, It can be seen that the data package transmitted in the message by remote unit 26b must be stored and forwarded by four intermediate remote units 26c,26d,26e and 26f, respectively, in order to reach the master unit.)** is programmed to temporarily store identifying information of said

message and does not generate subsequent echoes of said message while the

identifying information remains stored **(col. 8, lines 63-67 and col. 9, lines 1-9,**

Assuming that remote unit 26c has transmitted a message containing a data

package originated by the remote unit, the message will be directed to remote

unit 26d, since that remote unit is presently preferred. In addition to the meter

data, the message will contain an Intermediate Destination Address, which is the

address of remote unit 26d and an Intermediate Source Address, which is the

address of unit 26c. An additional address will be included indicating that unit

26c is the source of the data package in the message. The message will further

contain information indicating that the message is a down link message,

therefore, the master unit is the final destination. Accordingly, unit 26d will

determine that the meter data are to be stored and forwarded in the down link

direction.).

Regarding claim 35, Robinton teaches a system as claimed in claim 34, wherein each

control device comprises a memory, and is programmed to store the identifying

information of messages it has generated an echo of in a temporary list containing

identifying information of a predetermined maximum number of messages **(col. 9, lines**

51-54, Unit 26f will use the previously-stored Intermediate Source Address as the

Intermediate Destination Address of the message to be transmitted. The final

destination address of the received message will be used to identify the stored up

link address.).

Regarding claim 64, Robinton teaches a control device (7.sub.i) **(col. 12, line 34,**

remote unit) for electrical devices (1.sub.i) comprising at least a processor (9) **(fig. 3,**

CPU 36), a memory (11), a connection to a corresponding electrical device (1.sub.i),

and a device for transmission and reception (12) **(see fig. 3, 30 and 34)** on a

communication channel **(fig. 3, power line 32)** for the reception and the transmission of

information and/or commands **(col. 8, line 67, meter data)**, to which an identification

number (ID_i) is assigned, said control device being programmed to receive and

transmit messages via said communication channel, each of which contains at least: a

progressive message number (Pr_N) **(Abstract, information which indicates the**

number of message transmissions required to transfer a data package from the

transmitting unit to the master unit); an addressee identification number

(ID_addressee) **(col. 8, lines 67-68, the message will contain an Intermediate**

Destination Address and Intermediate Source address); a portion of informative

content and/or executable commands (M4) **(col. 8, line67, meter data)**; and is

programmed so that when it receives a message containing an addressee identification

number (ID_addressee) differing from its own identification number (ID_i) **(fig. 2, col. 8,**

lines 19-22, Intermediate remote unit 26f will then store and forward the data

package in the message to its preferred down link node address, which is the

address of the master unit in this instance.), from said channel via its own

transmission and reception device (12), it transmits at least an echo of the message

received on said channel (3) after a given delay interval **(col. 9, lines 7-9, Accordingly,**

unit 26d will determine that the meter data are to be stored and forwarded in the down link direction.), unless it receives on said channel a reply to said message, a routine being provided to prevent unlimited generations of echoes of a given message **(col. 9, lines 33-36, Upon receipt of the final down link message of the sequence, master unit 24 is adapted to initiate an up link message sequence which will include the transmission of one or more up link messages.)**.

Regarding claim 65, Robinton teaches a control device as claimed in claim 64, programmed to temporarily store identifying information of each message of which it generates an echo **(col. 8, lines 22-26, It can be seen that the data package transmitted in the message by remote unit 26b must be stored and forwarded by four intermediate remote units 26c,26d,26e and 26f, respectively, in order to reach the master unit.)** and not to generate subsequent echoes of said message while the identifying information remains stored **(col. 8, lines 63-67 and col. 9, lines 1-9, Assuming that remote unit 26c has transmitted a message containing a data package originated by the remote unit, the message will be directed to remote unit 26d, since that remote unit is presently preferred. In addition to the meter data, the message will contain an Intermediate Destination Address, which is the address of remote unit 26d and an Intermediate Source Address, which is the address of unit 26c. An additional address will be included indicating that unit 26c is the source of the data package in the message. The message will further contain information indicating that the message is a down link message,**

therefore, the master unit is the final destination. Accordingly, unit 26d will determine that the meter data are to be stored and forwarded in the down link direction.).

Regarding claim 66, Robinton teaches a control device as claimed in claim 65, programmed to store the identifying information of messages of which it generated an echo in a temporary list of identifying information relative to a maximum number of said messages **(col. 9, lines 51-54, Unit 26f will use the previously-stored Intermediate Source Address as the Intermediate Destination Address of the message to be transmitted. The final destination address of the received message will be used to identify the stored up link address.)**.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent Application Publication 2001/0024441 to Bateman et al. discloses a method for receiving power and data on the same physical link.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEREMY COSTIN whose telephone number is (571)270-3873. The examiner can normally be reached on m-f, 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patel Jay can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JEREMY COSTIN/   /Alpus H. Hsu/
Examiner, Art Unit 2465   Primary Examiner, Art Unit 2465